P RTAL

USPTO

Subscribe (Full Service) Register (Limited Service, Free) Login

Search: ● The ACM Digital Library ○ The Guide

garbage collection stack frame phase detection

SEARCH

[redacted]

Feedback

[redacted]

Sort results by: relevance

Display results: expanded form

Save results to a Binder

□ Open results in a new window

Refine these results with Advanced Search

Try this search in The ACM Guide

Results 1 - 20 of 94 Result page: **1** 2 3 4 5 next >>

1 Method-level phase behavior in java workloads

Andy Georges, Dries Buytaert, Lieven Eeckhout, Koen De Bosschere

October 2004 **ACM SIGPLAN Notices**, Volume 39 Issue 10

Publisher: ACM

Full text available: pdf(695.63 KB)

Additional Information: full citation, abstract, references, cited by, index terms

Java workloads are becoming more and more prominent on various computing devices. Understanding the behavior of a Java workload which includes the interaction between the application and the virtual machine (VM), is thus of primary importance during ...

2 Automated detection of persistent kernel control-flow attacks

Nick L. Petroni, Jr., Michael Hicks
October 2007 **CCS '07:** Proceedings of the 14th ACM conference on Computer and communications security
Publisher: ACM
Full text available: pdf(311.87 KB) Additional Information: full citation, abstract, references, index terms

This paper presents a new approach to dynamically monitoring operating system kernel integrity, based on a property called *state-based control-flow integrity* (SBCFI). Violations of SBCFI signal a persistent, unexpected modification of the kernel's ...

Keywords: CFI, integrity, kernel, rootkit, virtualization

3 Efficient on-the-fly data race detection in multithreaded C++ programs

Eli Pozniansky, Assaf Schuster
June 2003 **PPoPP '03:** Proceedings of the ninth ACM SIGPLAN symposium on Principles and practice of parallel programming
Publisher: ACM
Full text available: pdf(288.53 KB) Additional Information: full citation, abstract, references, cited by, index terms

Data race detection is highly essential for debugging multithreaded programs and assuring their correctness. Nevertheless, there is no single universal technique capable of handling the task efficiently, since the data race detection problem is computationally ...

Keywords: concurrency, data race, instrumentation, multithreading, synchronization

4 Method-level phase behavior in java workloads

Andy Georges, Dries Buytaert, Lieven Eeckhout, Koen De Bosschere
October 2004 **OOPSLA '04:** Proceedings of the 19th annual ACM SIGPLAN conference on Object-oriented programming, systems, languages, and applications
Publisher: ACM
Full text available: pdf(695.63 KB) Additional Information: full citation, abstract, references, cited by, index terms

Java workloads are becoming more and more prominent on various computing devices. Understanding the behavior of a Java workload which includes the interaction between the application and the virtual machine (VM), is thus of primary importance during ...

5 Efficient on-the-fly data race detection in multithreaded C++ programs

Eli Pozniansky, Assaf Schuster
October 2003 **ACM SIGPLAN Notices**, Volume 38 Issue 10
Publisher: ACM

Full text available: pdf(288.53 KB) Additional Information: full citation, abstract, references, cited by, index terms

Data race detection is highly essential for debugging multithreaded programs and assuring their correctness. Nevertheless, there is no single universal technique capable of handling the task efficiently, since the data race detection problem is computationally ...

Keywords: concurrency, data race, instrumentation, multithreading, synchronization

6 Tuning garbage collection for reducing memory system energy in an embedded java environment

G. Chen, R. Shetty, M. Kandemir, N. Vijaykrishnan, M. J. Irwin, M. Wolczko
November 2002 **ACM Transactions on Embedded Computing Systems (TECS)**, Volume 1 Issue 1
Publisher: ACM

Full text available: pdf(740.23 KB) Additional Information: full citation, abstract, references, cited by, index terms

Java has been widely adopted as one of the software platforms for the seamless integration of diverse computing devices. Over the last year, there has been great momentum in adopting Java technology in devices such as cellphones, PDAs, and pagers where ...

Keywords: Garbage collector, Java Virtual Machine (JVM), K Virtual Machine (KVM), low power computing

7 RaceTrack: efficient detection of data race conditions via adaptive tracking

Yuan Yu, Tom Rodeheffer, Wei Chen
October 2005 **SOSP '05:** Proceedings of the twentieth ACM symposium on Operating systems principles
Publisher: ACM

Full text available: pdf(321.34 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bugs due to data races in multithreaded programs often exhibit non-deterministic symptoms and are notoriously difficult to find. This paper describes RaceTrack, a dynamic race detection tool that tracks the actions of a program and reports a warning ...

Keywords: race detection, virtual machine instrumentation

8 Generating object lifetime traces with Merlin

Matthew Hertz, Stephen M. Blackburn, J. Eliot B. Moss, Kathryn S. McKinley, Darko Stefanovi•
May 2006 **ACM Transactions on Programming Languages and Systems (TOPLAS)**, Volume 28 Issue 3
Publisher: ACM

Full text available: pdf(1.31 MB) Additional Information: full citation, abstract, references, cited by, index terms

Programmers are writing a rapidly growing number of programs in object-oriented languages, such as Java and C&num;, that require garbage collection. Garbage collection traces and simulation speed up research by enabling deeper understandings of object ...

Keywords: Garbage collection, object lifetime analysis, trace design, trace generation

9 Region-based shape analysis with tracked locations

Brian Hackett, Radu Rugina
January 2005 **ACM SIGPLAN Notices**, Volume 40 Issue 1
Publisher: ACM

Full text available: pdf(205.67 KB) Additional Information: full citation, abstract, references, cited by, index terms

This paper proposes a novel approach to shape analysis: using local reasoning about individual heap locations instead of global reasoning about entire heap abstractions. We present an inter-procedural shape analysis algorithm for languages with destructive ...

Keywords: memory leaks, memory management, shape analysis, static error detection

10 Probabilistic calling context

Michael D. Bond, Kathryn S. McKinley
October 2007 **ACM SIGPLAN Notices**, Volume 42 Issue 10
Publisher: ACM

Full text available: pdf(237.78 KB) Additional Information: full citation, abstract, references, index terms

Calling context enhances program understanding and dynamic analyses by providing a rich representation of program location. Compared to imperative programs, object-oriented programs use more interprocedural and less intraprocedural control flow, ...

Keywords: anomaly-based bug detection, calling context, dynamic context sensitivity, intrusion detection, managed languages, probabilistic, residual testing

11 Automated discovery of scoped memory regions for real-time Java

Morgan Deters, Ron K. Cytron
February 2003 **ACM SIGPLAN Notices**, Volume 38 Issue 2 supplement
Publisher: ACM

Full text available: pdf(227.49 KB) Additional Information: full citation, abstract, references, cited by, index terms

Advances in operating systems and languages have brought the ideal of reasonably-bounded execution time closer to developers who need such assurances for real-time and embedded systems applications. Recently, extensions to the Java libraries and virtual ...

Keywords: garbage collection, memory management, real-time Java, regions, trace-based analysis

12 RaceTrack: efficient detection of data race conditions via adaptive tracking

Yuan Yu, Tom Rodeheffer, Wei Chen
October 2005 **ACM SIGOPS Operating Systems Review**, Volume 39 Issue 5
Publisher: ACM

Full text available: pdf(321.34 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bugs due to data races in multithreaded programs often exhibit non-deterministic symptoms and are notoriously difficult to find. This paper describes RaceTrack, a dynamic race detection tool that tracks the actions of a program and reports a warning ...

Keywords: race detection, virtual machine instrumentation

13 Region-based shape analysis with tracked locations

Brian Hackett, Radu Rugina
January 2005 **POPL '05:** Proceedings of the 32nd ACM SIGPLAN-SIGACT symposium on Principles of programming languages
Publisher: ACM

Full text available: pdf(205.67 KB) Additional Information: full citation, abstract, references, cited by, index terms

This paper proposes a novel approach to shape analysis: using local reasoning about individual heap locations instead of global reasoning about entire heap abstractions. We present an inter-procedural shape analysis algorithm for languages with destructive ...

Keywords: memory leaks, memory management, shape analysis, static error detection

14 Probabilistic calling context

Michael D. Bond, Kathryn S. McKinley
October 2007 **OOPSLA '07:** Proceedings of the 22nd annual ACM SIGPLAN conference on Object oriented programming systems and applications
Publisher: ACM
Full text available: pdf(237.78 KB) Additional Information: full citation, abstract, references, index terms

Calling context enhances program understanding and dynamic analyses by providing a rich representation of program location. Compared to imperative programs, object-oriented programs use more interprocedural and less intraprocedural control flow, ...

Keywords: anomaly-based bug detection, calling context, dynamic context sensitivity, intrusion detection, managed languages, probabilistic, residual testing

15 MUVI: automatically inferring multi-variable access correlations and detecting related semantic and concurrency bugs

Shan Lu, Soyeon Park, Chongfeng Hu, Xiao Ma, Weihang Jiang, Zhenmin Li, Raluca A. Popa, Yuanyuan Zhou
October 2007 **SOSP '07:** Proceedings of twenty-first ACM SIGOPS symposium on Operating systems principles
Publisher: ACM
Full text available: pdf(447.11 KB) Additional Information: full citation, abstract, references, index terms

Software defects significantly reduce system dependability. Among various types of software bugs, semantic and concurrency bugs are two of the most difficult to detect. This paper proposes a novel method, called MUVI, that detects an important class ...

Keywords: bug detection, concurrency bug, variable correlation

16 Automated discovery of scoped memory regions for real-time Java

Morgan Deters, Ron K. Cytron
June 2002 **ISMM '02:** Proceedings of the 3rd international symposium on Memory management
Publisher: ACM
Full text available: pdf(227.49 KB) Additional Information: full citation, abstract, references, cited by, index terms

Advances in operating systems and languages have brought the ideal of reasonably-bounded execution time closer to developers who need such assurances for real-time and embedded systems applications. Recently, extensions to the Java libraries and virtual ...

Keywords: garbage collection, memory management, real-time Java, regions, trace-based analysis

17 Escape analysis for Java$^{\text{TM}}$: Theory and practice

Bruno Blanchet
November 2003 **ACM Transactions on Programming Languages and Systems (TOPLAS)**, Volume 25 Issue 6
Publisher: ACM

Full text available: pdf(684.21 KB) Additional Information: full citation, abstract, references, cited by, index terms, review

Escape analysis is a static analysis that determines whether the lifetime of data may exceed its static scope.This paper first presents the design and correctness proof of an escape analysis for Java$^{\text{TM}}$. This analysis is interprocedural, context ...

Keywords: Java, optimization, stack allocation, static analysis, synchronization elimination

18 Online performance auditing: using hot optimizations without getting burned

Jeremy Lau, Matthew Arnold, Michael Hind, Brad Calder
June 2006 **PLDI '06:** Proceedings of the 2006 ACM SIGPLAN conference on Programming language design and implementation
Publisher: ACM

Full text available: pdf(281.62 KB) Additional Information: full citation, abstract, references, cited by, index terms

As hardware complexity increases and virtualization is added at more layers of the execution stack, predicting the performance impact of optimizations becomes increasingly difficult. Production compilers and virtual machines invest substantial development ...

Keywords: Java, feedback-directed optmizations, virtual machines

19 Practicing JUDO: Java under dynamic optimizations

Michał Cierniak, Guei-Yuan Lueh, James M. Stichnoth
August 2000 **PLDI '00:** Proceedings of the ACM SIGPLAN 2000 conference on Programming language design and implementation
Publisher: ACM

Full text available: pdf(190.06 KB) Additional Information: full citation, abstract, references, cited by, index terms

A high-performance implementation of a Java Virtual Machine (JVM) consists of efficient implementation of Just-In-Time (JIT) compilation, exception handling, synchronization mechanism, and garbage collection (GC). These components are tightly coupled ...

20 Speculative optimization using hardware-monitored guarded regions for java virtual machines

Lixin Su, Mikko H. Lipasti
June 2007 **VEE '07:** Proceedings of the 3rd international conference on Virtual execution environments
Publisher: ACM

Full text available: pdf(357.43 KB) Additional Information: full citation, abstract, references, index terms

Aggressive dynamic optimization in high-performance Java Virtual Machines can be hampered by language features like Java's exception model, which requires precise detection and handling of program-generated exceptions. Furthermore, the compile-time overhead ...

Keywords: java, precise exceptions, speculative processors, transactional memory, virtual machines

Results 1 - 20 of 94 Result page: **1** 2 3 4 5 next >>